

REMARKS

The Examiner is thanked for the performance of a thorough search, and for considering the references included in the Information Disclosure Statement mailed on August 17, 2004.

Claims 1 and 10-13 have been amended. Claim 5 has been canceled. Claims 14-19 have been canceled in response to a Restriction Requirement issued by the Examiner. No claims have been added. Hence, Claims 1-4 and 6-13 are pending in the application.

Each issue raised in the Office Action mailed June 14, 2005 is addressed hereinafter.

I. TELEPHONE INTERVIEW SUMMARY

In response to a Restriction Requirement that grouped the Claims of the present application in Group I (Claims 1-13) and Group II (Claims 14-19), the Applicants' attorney Stoycho D. Draganoff and Examiner Janet Robbins conducted a telephone interview on May 24, 2005. During the interview, the Applicant's attorney elected for prosecution Claims 1-13, in Group I, without traverse.

II. ISSUES RELATING TO THE CITED ART

A. INDEPENDENT CLAIM 1

Claim 1 has been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over Sharma et al., U.S. Patent No. 6,633,833 ("SHARMA") in view of Dorchak, U.S. Patent No. 5,161,110 ("DORCHAK"). In addition, the now canceled Claim 5 (features from which are herein included in the amended Claim 1) was rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK, and further in view of Brown et al., U.S. Patent Application Publication No. 2003/0009465 ("BROWN"). The rejection of Claim 1 is respectfully traversed.

As amended, Claim 1 recites:

receiving a request for information about a device, wherein **the device is a network element configured for receiving packets and transmitting the packets in a packet-switched network;**
... ;
sending a link referencing the command set to a computer associated with the device;
at the computer associated with the device:
 downloading the command set that is referenced in the link based on following the link;
 invoking a command runner module to execute the downloaded command set;
 receiving a set of results from the device;
 removing one or more confidential data elements from the set of results to create a modified result set; and
 providing the modified result set to a provider server that comprises an analysis engine;
receiving analysis results from the analysis engine, wherein the analysis results are based at least in part on the modified result set;
... .

It is respectfully submitted that SHARMA and DORCHAK do not describe or suggest the above features of Claim 1.

1. SHARMA, DORCHAK, and BROWN do not describe or suggest the features of Claim 1 of sending a link referencing the command set to a computer associated with the device, and, at the computer associated with the device, performing several steps to obtain a modified result set which is provided to an analysis engine at a provider server.

The features included in Claim 1 provide for an interaction between a device about which information is requested, a computer associated with the device, and a provider server that comprises an analysis engine. Specifically, as featured in Claim 1, after a request for information about the device is received, a command set of executable commands is constructed. A link referencing the command set is sent to the computer associated with the device. At the computer associated with the device, the following steps are performed: the command set is downloaded based on following the link; a command runner module is invoked to execute the downloaded command set; a set of results is received from the device; one or more confidential

data elements are removed from the set of results to create a modified result set; and the created modified result set is provided to the analysis engine at the provider server.

It is respectfully submitted that the above features of Claim 1, which provide for interaction between a device about which information is requested, a computer associated with the device, and a provider server that includes an analysis engine are not described in or suggested by SHARMA, DORCHAK, or BROWN.

Specifically, SHARMA describes a system for diagnosing medical ultrasound scanners from a remote location by “applying a diagnostic middleware architecture acting as an interface between a **diagnostics section of the scanners** and a **web server within the scanners**”.

(SHARMA, col. 2, lines 49-52, emphasis added.) “The **diagnostic middleware architecture initiates execution of diagnostic programs within the scanners** in response to client requests received by the servers from the remote location.” (Col. 2, lines 59-62, emphasis added.) Thus, the diagnostic programs in SHARMA are executed by a diagnostic middleware that is executing WITHIN the scanners being diagnosed. (See at least SHARMA, col. 2, lines 59-62; col. 3, lines 14-18; col. 3, lines 36-39, and col. 10, lines 6-10.) This is most clearly illustrated in Figure 2 of SHARMA, which shows that diagnostic middleware architecture 160 and its components are located WITHIN processing architecture 70. Processing architecture 70, as depicted in Figure 1 of SHARMA, is PART OF medical ultrasound scanner 5 that is being diagnosed.

In contrast, Claim 1 clearly indicates that a computer with a command runner module executing the command set resides outside of the device about which information is requested and that both the computer and the device interact with a provider server. For example, Claim 1 includes the features of a computer associated with a network device that downloads the command set and invokes a command runner module to execute the downloaded command set; the results from executing the command set are provided to an analysis engine at the provider

server. SHARMA does not show all three such elements. Since SHARMA clearly indicates that the entity executing diagnostic programs for a medical ultrasound scanner resides WITHIN the scanner being diagnosed, SHARMA does not, and cannot possibly, describe the above features of Claim 1. Further, the Office Action does not assert and the Applicants cannot determine that DORCHAK describes any of these features of Claim 1.

Moreover, Claim 1 includes the feature of, **at the computer associated with the device, removing one or more confidential data elements from the set of results to create a modified result set.** This feature is similar to the features recited in the now canceled Claim 5. In rejecting Claim 5, the Office Action asserts that BROWN describes removing confidential information from data about a device, which data is sent to a server from client computers. This is incorrect.

BROWN describes a system for managing **user** confidential information **in** a data processing system server. (See at least Abstract, Figures 5 and 7, paragraphs [0011], [0036] and [0037].) Specifically, the BROWN system “allows a user to request the removal of specific personal or confidential information from a server” (BROWN, paragraph [0037]), not removing confidential information from a result set received from a network device. Thus, in BROWN the personal or confidential information is information about a USER, which information is being removed from data that is STORED in a data processing system server.

In contrast, Claim 1 includes the feature of removing one or more confidential data elements from a result set returned from a device, which result set is obtained by executing a command set after a request for information about the device has been received. Thus, while BROWN may be describing removing personal information about a user from data stored in a data processing system server, Claim 1 describes removing one or more confidential data

elements from a result set returned by a device in response to a request to collect information about the device. For this reason, BROWN does not describe the above feature of Claim 1.

For the above reasons, SHARMA, DORCHAK, and BROWN do not describe or suggest the features of Claim 1 of sending a link referencing the command set to a computer associated with the device, and, at the computer associated with the device, performing several steps to obtain a modified result set which is provided to an analysis engine at a provider server.

2. SHARMA and DORCHAK do not describe or suggest the feature of Claim 1 of receiving a request for information about a device, wherein the device is a network element configured for receiving packets and transmitting the packets in a packet-switched network.

Claim 1 includes the feature of **receiving a request for information about a device, wherein the device is a network element configured for receiving packets and transmitting the packets in a packet-switched network.** The Office Action asserts that such feature is described in SHARMA. This is incorrect.

In general, SHARMA describes method and apparatus for diagnosing ultrasound scanners from a remote location by applying diagnostic middleware architecture to act as an interface between a web server and a diagnostics section within the scanners. (SHARMA, Abstract.) Specifically, SHARMA describes the ultrasound scanners as being **medical** ultrasound scanners in col. 1, lines 7-8. In col. 1, lines 13-16, SHARMA further states that “[u]ltrasound scanners typically comprise different hardware and software implementations that perform various operations such as scan data collection and scan data conversion.” “The primary function of the ultrasound scanner 5 is to transmit ultrasound energy into a subject to be imaged, and receive and process backscattered ultrasound signals from the subject to create and display an image.” (SHARMA, col. 4, lines 49-53.) The subject off which ultrasound signals are

backscattered may be tissue or blood samples. (SHARMA, col. 5, lines 5-8.)

Thus, the devices described in SHARMA are medical ultrasound scanners that may be used to create ultrasound images, such as images of tissues and blood samples. Nothing in SHARMA teaches, describes or suggests that medical ultrasound scanners may somehow be functioning as network elements.

In contrast, Claim 1 includes the feature of receiving a request for information about a network element, such as, for example, a router, a data switch, or a hub, that is configured for receiving packets from, and transmitting the packets to, a packet-switched network. For this reason, it is respectfully submitted that SHARMA does not describe the above feature of Claim 1.

DORCHAK does not teach, describe, or suggest collecting or analyzing any information about **network** elements either. DORCHAK describes a process control system that may be used in manufacturing or processing facilities. (DORCHAK, col. 1, lines 12-15.) Specifically, the facilities in which DORCHAK's process control system may be implemented are oil and gas production and processing facilities, and the entities being controlled are different pieces of equipments or processes in such facilities. (DORCHAK, col. 2, lines 44-46.) There is nothing in DORCHAK that teaches or suggests that any information is being collected about network elements, such as the network elements featured in Claim 1.

For the above reasons, it is respectfully submitted that SHARMA and DORCHAK, whether taken alone or in combination, do not teach, describe, or suggest the feature of Claim 1 of receiving a request to collect information for a device that is a network element configured for receiving packets and transmitting the packets in a packet-switched network.

3. There is no suggestion or motivation to combine SHARMA with DORCHAK and SHARMA with BROWN because any such combinations will change the principle of operation of SHARMA.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the cited references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); see also MPEP § 2143.01.

It is respectfully submitted that the combination of SHARMA and DORCHAK proposed in the Office Action would violate the principle of operation of SHARMA, according to which diagnostic information retrieved from a medical ultrasound scanner is **presented** to a remote client or user.

As discussed above, SHARMA teaches that information is collected by medical ultrasound scanners in response to a client request from a remote location. (SHARMA, col. 2, lines 59-62.) The diagnostic programs generate diagnostic results, and the diagnostic middleware architecture translates the diagnostic results into information which is transferred to the remote location. (SHARMA, col. 2, line 63 to col. 3, line 1.) **“The information is displayed to an operator at the remote location.”** (SHARMA, col. 3, lines 1-2, emphasis added.)

Thus, a principle of operation in SHARMA is that any diagnostic information collected from a medical ultrasound scanner **is presented** to a user or an operator at a remote location. This principle is stated on numerous places in SHARMA, for example in col. 3, lines 1-2, col. 3, lines 24-25, col. 3, lines 44-45, and col. 10, lines 14-15.

On the other hand, DORCHAK describes a system comprising a monitor for receiving and monitoring input signals and a guardian that is notified if an input signal exceeds a predetermined range. (DORCHAK, Abstract.) The guardian may include a problem-solving

artificial intelligence tool, such as an expert system. (DORCHAK, col. 5, lines 44-46.) In operation, the monitor monitors operational parameters, and if an abnormality is detected, then the monitor issues a request to the guardian for a remedial course of action. (DORCHAK, col. 6, lines 12-14.) After receiving the request from the monitor, the guardian may use the problem-solving tool to determine an appropriate course of action. (DORCHAK, col. 6, lines 18-21.) When the proper course of action is determined, the **guardian sends this course of action to the monitor**. (DORCHAK, col. 6, lines 30-32.) Thus, in DORCHAK, the principle of operation is that a first entity, such as the monitor, sends to a second entity, such as the guardian, a request with information describing a problem. The second entity determines, and **sends back** to the first entity, **a remedial course of action**. In other words, the second entity sends back to the first entity not the original information, but completely different information.

It follows then, that if the SHARMA system is modified according to the teachings of DORCHAK, it would mean that any information collected from a medical ultrasound scanner will NOT be presented to a remote user or an operator. Specifically, if in SHARMA any diagnostic information retrieved from a medical ultrasound scanner is passed through the problem-solving tool of DORCHAK, the problem-solving tool will NOT return the retrieved diagnostic information but a completely different information, such as some remedial course of action. Thus, the remote client or a user will NOT be able to see the original diagnostic information retrieved from the medial ultrasound scanner. This, however, violates the principle of operation of SHARMA which requires that any diagnostic information from the medical ultrasound scanner be presented to the remote user.

Further, any combination of SHARMA with BROWN will also result in a modification that violates the principle of operation of SHARMA. As discussed above, a principle of operation of SHARMA requires that any diagnostic information requested from a medical

ultrasound scanner be presented to the remote user. On the other hand, as discussed above, BROWN teaches the removal of specific personal or confidential information from data stored in a data processing system server in response to a request from a user. (See BROWN, paragraph [0037]). Thus, if the SHARMA system is modified according to the teachings of BROWN, the modification would allow a user to remove information from the medical ultrasound scanner and any such removed information will not be presented to the user. This, however, violates the principle of operation of SHARMA according to which requested diagnostic information from a scanner is to be presented to a user. Further, any modification of SHARMA according to the teachings of BROWN would result in removal of information from SHARMA's medical ultrasound scanner, which may make the scanner unsatisfactory for its intended purpose if the removed information is related to scans stored in the scanner.

For the reasons stated above, it is respectfully submitted that SHARMA and DORCHAK do not describe or suggest all features of Claim 1, and that any combinations of SHARMA with DORCHAK and SHARMA with BROWN would violate the principle of operation of SHARMA. Therefore, Claim 1 is patentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK. Reconsideration and withdrawal of the rejection of Claim 1 are respectfully requested.

B. INDEPENDENT CLAIMS 10-13

Independent Claims 10-13 have been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK.

Claims 10-13 include features similar to the features of Claim 1 discussed above. For this reason, the Applicants respectfully submit that Claims 10-13 are patentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK for at least the reasons given above with respect

to Claim 1. Reconsideration and withdrawal of the rejections of Claims 10-13 are respectfully requested.

C. DEPENDENT CLAIM 2

Dependent Claim 2 has been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK.

Claim 2 includes the feature of a command set that comprises one or more commands to collect data from two or more devices simultaneously. The Office Action asserts that this feature of Claim 2 is described in col. 2, lines 24-25 of DORCHAK. This is incorrect.

In the rejection of Claim 1, which rejection is apparently incorporated into the rejection of Claim 2, the Office Action has asserted that the set of Java servlets described in col. 9, lines 28-31 of SHARMA corresponds to the command set feature of Claim 1. Specifically, the Office Action has asserted that the set of Java servlets, in the diagnostic middleware architecture of SHARMA, which “initiate execution of diagnostic programs related to performing diagnostic tests” (SHARMA, col. 9, lines 31-34) on the hardware of the medical ultrasound scanners, corresponds to the command set feature of Claim 1. For this reason, in order to show prior disclosure of the feature of Claim 2, the Office Action needs to show that a Java servlet in the diagnostic middleware architecture of SHARMA is capable of collecting data from two or more medical ultrasound scanners simultaneously.

However, SHARMA does not include any teaching that a Java servlet is capable of executing diagnostic programs on two separate medical ultrasound scanners at the same time. On the contrary, as shown in FIG. 2, each medical ultrasound scanner in SHARMA executes its own Java servlets as part of its own diagnostic middleware architecture. (See SHARMA, Fig. 2, middleware architecture 160.) Nothing in SHARMA teaches or suggests that a Java servlet in one medical ultrasound scanner is capable of executing a diagnostic program in another scanner.

Further, DORCHAK does not provide any such teaching either. In col. 2, lines 24-25, which passage the Office Action cites as allegedly describing the above feature of Claim 2, DORCHAK states that “[i]n one aspect of the present invention, a real-time hierarchical process control system is provided.” The Applicants are at a complete loss to see how a real-time hierarchical process control system might show that a Java servlet on one medical ultrasound scanner is capable of executing a diagnostic program on a different medical ultrasound scanner. Further, the Applicants find nothing else in DORCHAK that may correspond to the above feature of Claim 2.

For these reasons, it is respectfully submitted that SHARMA and DORCHAK, whether taken alone or in combination, do not describe the above feature of Claim 2. Thus, Claim 2 is patentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK. Reconsideration and withdrawal of the rejection of Claim 2 are respectfully requested.

D. DEPENDENT CLAIM 3

Dependent Claim 3 has been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK.

Claim 3 includes the feature of a command set that comprises a first command to collect data from the device at a first time, and a second command to collect data from the device at a second time, wherein the first time is different than the second time. The Office Action asserts that this feature of Claim 2 is described in col. 5, lines 16-23 of SHARMA. This is incorrect.

In the rejection of Claim 1, which rejection is apparently incorporated into the rejection of Claim 3, the Office Action has asserted that the set of Java servlets in SHARMA’s diagnostic middleware architecture corresponds to the command set feature of Claim 1. Thus, in order to show the above feature of Claim 3, the Office Action needs to show that in SHARMA the same request from a client application for collecting information from a medical ultrasound scanner

may include a first call to a Java servlet, which first call is to be executed at a first time, and a second call to a Java servlet, which second call is to be executed at a second time. SHARMA, however, includes no such teaching.

In col. 5, lines 16-23, which passage the Office Action cites as allegedly describing the above feature of Claim 3, SHARMA states:

The received electrical signals are routed through the T/R switching circuitry 30 to the receiver 50. The receiver 50 amplifies and digitizes the received signals and provides other functions such as gain compensation. The digitized received signals correspond to the backscattered waves received by each transducer element 25 at various times and preserve the amplitude and phase information of the backscattered waves.

It is respectfully submitted that the above passage refers to FIG. 1 of SHARMA and describes a particular phase of the operation of a medical ultrasound scanner. Nothing in this passage teaches or suggests that the same request from a client application may include two calls to a Java servlet, which calls are to be executed at different times. Further, the Applicants find no other passage in SHARMA that makes any such teaching.

For this reason, it is respectfully submitted that SHARMA and DORCHAK, whether taken alone or in combination, do not describe the above feature of Claim 3. Thus, Claim 3 is patentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK. Reconsideration and withdrawal of the rejection of Claim 3 are respectfully requested.

E. DEPENDENT CLAIMS 2-4 AND 6-9

Claims 2-4 and 6-9 have been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over SHARMA in view of DORCHAK.

Claims 2-4 and 6-9 are dependent upon independent Claim 1, and thus include each and every feature of Claim 1. Thus, each of Claims 2-4 and 6-9 is allowable for the reasons given above for Claim 1. In addition, each of Claims 4 and 6-9 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences

already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 2-4 and 6-9 are allowable for the reasons given above with respect to Claim 1.

III. CONCLUSION

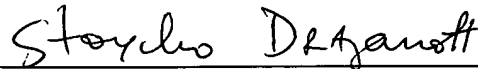
The Applicants believe that all issues raised in the Office Action have been addressed. Further, for the reasons set forth above, the Applicants respectfully submit that allowance of the pending claims is appropriate. Reconsideration of the present application is respectfully requested in light of the amendments and remarks herein.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firms check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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